

**AMENDMENTS TO THE DRAWINGS**

Applicant submits herewith one replacement drawing sheet including Figure 1. Figure 1 has been corrected to more clearly show the feature of “an optical axis of said light emitting device” as recited in the pending claims, and this feature has been labeled with the reference character “OA<sub>led</sub>.” Figure 1 has also been corrected to more clearly show the feature of a single optical axis of the lens 5, and this feature has been labeled with the reference character “OA<sub>lens</sub>.” As shown in Figure 1, the axis OA<sub>led</sub> and the axis OA<sub>lens</sub> overlap. Thus, Applicant respectfully requests that the Examiner approve the aforementioned corrections to Figure 1.

Attachment: 1 Replacement Sheet

**REMARKS**

**I. Status of the Application**

By the present amendment, claims 9 and 10 have been amended. Applicant respectfully submits that these amendments are not intended to narrow the scope of the original claims, but are rather for precision of language and to explicitly recite within the claim what was believed to have already been implicitly defined therein. Moreover, claims 12-14 and 17 have been canceled without prejudice or disclaimer. Claims 1-11, 15-16 and 18-20 are all the claims pending in the Application.

The present Amendment addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

**II. Allowable Subject Matter**

Applicant thanks the Examiner for indicating that claims 6-8, 11, 15, and 18-20 are allowed.

Applicant also thanks for the Examiner for indicating that claims 3-5 and 16 would be allowable if rewritten or amended to overcome the outstanding rejections under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph. However, Applicant respectfully requests that the Examiner hold in abeyance any such rewriting until the Examiner has had an opportunity to reconsider (and withdraw) the outstanding rejections based on the following remarks.

Finally, Applicant thanks the Examiner for indicating that claims 9 and 10 would be allowable if rewritten or amended to overcome the outstanding claim objections. Applicant had corrected the informalities noted by the Examiner as set forth above and, therefore, Applicant submits that claims 9 and 10 are immediately allowable.

### **III. Objections to the Drawings**

The Examiner has objected to the drawings under 37 C.F.R. § 1.83 (a). In particular, the Examiner alleges that the features of “an optical axis of said light emitting device” as claimed in claim 3, “said optical axis of said light emitting device” and “a center axis of said device lens” as claimed in claim 4, “said optical axis of said light emitting device” as claimed in 5, “the semiconductor light emitting device has a single optical axis” as claimed in claim 12, and “the optical axis of said device lens corresponds to a single optical axis for the semiconductor light emitting device,” as claimed in claim 16, must be shown or the features canceled from the claims. However, Applicant respectfully traverses these objections for *at least* the reasons set forth below.

Applicant submits that all of the claim features identified by the grounds of objection are clearly shown in the drawings. Indeed, Applicant submits that one of ordinary skill in the art would readily understand that the term “optical axis” can refer to, for example, an imaginary line that represents a path along which light propagates through a system. As such, a skilled artisan would recognize that an optical axis of a light emitting device can be, for instance, an imaginary line that represents a path along which light propagates through said light emitting device.

Similarly, a skilled artisan would recognize that an optical axis of a device lens can be, for example, an imaginary line that represents a path along which light propagates through said device lens.

Further, Applicant submits that one of ordinary skill in the art would also recognize that a center axis of a lens can refer to, for example, an axis which extends through a center of a lens.

Thus, Applicant submits that the features of “an optical axis of said light emitting device” as claimed in claim 3, “said optical axis of said light emitting device” as claimed in claim 4, “said optical axis of said light emitting device” as claimed in 5, and “the semiconductor light emitting device has a single optical axis” as claimed in claim 12, are clearly shown in the drawings. For instance, as explained in the present specification, “FIG. 5 is a view of the light-emitting device of FIG. 4 viewed in the direction of its optical axis.” (Paragraph 0013). Additionally, as further explained in the present specification, “FIG. 7 shows the light-emitting device viewed in the direction of its optical axis.” (Paragraph 0015; *see also* paragraph 0048).

Therefore, Applicant submits that the features of “an optical axis of said light emitting device” as claimed in claim 3, “said optical axis of said light emitting device” as claimed in claim 4, “said optical axis of said light emitting device” as claimed in 5, and “the semiconductor light emitting device has a single optical axis” as claimed in claim 12, are clearly shown by *at least* Figure 5 and Figure 7.

Nevertheless, Applicant has submitted herewith a corrected Figure 1 which explicitly shows the optical axis “OA<sub>led</sub>” of an exemplary light emitting device 1, consistent with an

illustrative embodiment of the present invention. Applicant has also amended the present specification to include a corresponding description of the optical axis “OA<sub>led</sub>.” Accordingly, Applicant respectfully requests that the Examiner withdraw these objections.

Regarding the features of “a center axis of said device lens,” as claimed in claim 4, Applicant submits that Figure 4 plainly shows the feature of a center axis 14 of device lens 13, and that the center axis 14 merely refers to, for example, an axis running through the center of the device lens 13. Specifically, the present specification describes that “[i]n FIG. 4, the center axis 14 of the lens 13 of the light-emitting device 17 is indicated by a single-dashed line.” (Paragraph 0041). Therefore, since Figure 4 clearly shows the feature of “a center axis of said device lens,” as recited in claim 4, Applicant respectfully requests that the Examiner withdraw this objection.

Finally, with respect to the feature of wherein “the optical axis of said device lens corresponds to a single optical axis for the semiconductor light emitting device,” as claimed in claim 16, Applicant has submitted herewith a corrected Figure 1 which shows that the optical axis “OA<sub>led</sub>” of an exemplary light emitting device 1, corresponds to the single optical axis “OA<sub>lens</sub>” of the lens 5, consistent with an illustrative embodiment of the present invention. Indeed, as shown in Figure 1, the axis OA<sub>led</sub> and the axis OA<sub>lens</sub> overlap. Accordingly, Applicant respectfully requests that the Examiner withdraw these objections.

#### IV. Objections to the Specification

The Examiner has objected to specification, alleging that it is not clear what is considered to be the optical axis of the semiconductor light emitting device or the semiconductor light emitting device having a single optical axis. Applicant respectfully traverses these objections for *at least* the reasons set forth below.

As already explained above, one of ordinary skill in the art would readily understand that the term “optical axis” can refer to, for example, an imaginary line that represents a path along which light propagates through a system. Moreover, as explained above, Figure 5 is a view of the light-emitting device 12 viewed in the direction of its optical axis and Figure 7 shows the light emitting device 19 viewed in the direction of its optical axis. (Paragraph 0013; Paragraph 0015; *see also* paragraph 0048). And, Figure 1 has been amended to more clearly show the feature of the optical axis “OA<sub>led</sub>” of said light emitting device 1, and to more clearly show the feature of the single optical axis “OA<sub>lens</sub>” of the lens 5.

In view of the above, Applicant respectfully submits that, contrary to the grounds of objection, it would have been clear to one of ordinary skill in the art what is considered to be the optical axis of the semiconductor light emitting device and what is considered to be the semiconductor light emitting device having a single optical axis. Accordingly, Applicant respectfully requests that the Examiner withdraw these objections.

**V. Claim Objections**

The Examiner has objected to claims 9 and 10 due to alleged informalities. The informalities noted by the Examiner have been corrected as set forth above. Accordingly, Applicant respectfully requests that the Examiner withdraw these objections.

**VI. Claim Rejections Under 35 U.S.C. § 112**

The Examiner has rejected claims 3-5, 12-14, and 16 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the present invention. Applicant respectfully traverses the Examiner's rejections for *at least* the reasons set forth below.

As an initial matter, Applicant notes that claims 12-14 have been canceled without prejudice or disclaimer and, therefore, the Examiner's rejections with respect to these claims are now moot.

According to the MPEP, the requirement to "distinctly" claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles. (MPEP §2173.02). Moreover, only when a claim remains insolubly ambiguous without a discernible meaning, after all reasonable attempts at construction, should the Examiner declare it indefinite. (MPEP §2173.02)

**A. Claim 3**

Regarding claim 3, the Examiner alleges that it is not clear how the semiconductor light emitting device can have an optical axis by merely having at least one semiconductor light

emitting element for forming a first illuminating beam and at least one semiconductor light emitting element for forming a second illuminating beam without an optical element.

As already explained above, one of the ordinary skill in the art would readily discern that the term “optical axis” can refer to, for example, an imaginary line that represents a path along which light propagates through a system. Accordingly, Applicant respectfully submits that one of ordinary skill in the art would readily discern that a semiconductor light emitting device comprising a first light-emitting element and a second light-emitting element would have an optical axis merely by virtue of the fact that the semiconductor light emitting device emits light which propagates in some direction.

For instance, a skilled artisan would readily discern that an optical axis of such a semiconductor light emitting device comprising a first light-emitting element and a second light-emitting element would be an imaginary line that represents a path along which light propagates through the semiconductor light emitting device, when the semiconductor light emitting device is considered as a whole (i.e., considering the light which propagates from both the first light-emitting element and the second light-emitting element). Indeed, contrary to the allegations in the grounds of rejection, an optical element such as a lens is not a prerequisite for a semiconductor light emitting device comprising a first light-emitting element and a second light-emitting element to have an optical axis—all that is required is that the semiconductor light emitting device propagate light in some direction.



Further, with respect to claim 3, Applicant submits that a skilled artisan would readily discern this plain meaning of the term “optical axis” as discussed above, when construed in light of corrected Figure 1, Figure 5 and Figure 7 of the present application.

Therefore, Applicant submits that, contrary to the grounds of rejection, it would have been clear to one of ordinary skill in the art how the semiconductor light emitting device recited in claim 3 can have an optical axis by merely having at least one semiconductor light emitting element for forming a first illuminating beam and at least one semiconductor light emitting element for forming a second illuminating beam. Accordingly, Applicant submits that claim 3 satisfies the requirements of 35 U.S.C. § 112, second paragraph, for *at least* these reasons and that the dependent claim 5 is allowable *at least* by virtue of its dependency on claim 3. As such, Applicant respectfully requests that the Examiner withdraw these rejections.

**B. Claim 4**

Regarding claim 4, the Examiner alleges that it is not clear what the difference is between “said optical axis of said light emitting device” and “a center axis of said device lens.” Applicant respectfully traverses the Examiner’s rejections for *at least* the reasons stated below.

As already discussed above, Applicant submits that one of ordinary skill in the art would readily discern that the term “optical axis” can refer to, for example, an imaginary line that represents a path along which light propagates through a system. Therefore, a skilled artisan would readily discern that the optical axis of a light emitting device is an imaginary line that represents a path along which light propagates through the light emitting device.

In contrast, as already discussed above, one of ordinary skill in the art would readily discern that a center axis of a device lens refers to, for example, an axis running through the center of the device lens. For instance, Figure 4 plainly shows the feature of a center axis 14 of device lens 13. Specifically, the present specification describes that “[i]n FIG. 4, the center axis 14 of the lens 13 of the light-emitting device 17 is indicated by a single-dashed line.” (Paragraph 0041).

Accordingly, Applicant respectfully submits that a skilled artisan would readily discern the difference is between “said optical axis of said light emitting device” and “a center axis of said device lens,” as recited in claim 4, and that this difference is quite clear from the present specification. Therefore, Applicant respectfully requests that the Examiner withdraw this rejection.

**C. Claim 16**

Regarding claim 16, the Examiner alleges that it is not clear what the difference is between “the optical axis of said device lens” and “a single optical axis of the semiconductor light emitting device.” Applicant respectfully traverses the Examiner’s rejections for *at least* the reasons stated below.

As already explained above, Applicant submits that one of ordinary skill in the art would readily understand that the term “optical axis” can refer to, for example, an imaginary line that represents a path along which light propagates through a system. Consequently, a skilled artisan

would readily discern that an optical axis of a device lens refers to, for example, an imaginary line that represents a path along which light propagates through the device lens.

Likewise, a skilled artisan would readily discern that a single optical axis of a semiconductor light emitting device refers to, for example, an imaginary line that represents a single path along which light propagates through the semiconductor light emitting device. Thus, one of ordinary skill would readily discern the difference between the recited “optical axis of said device lens” and the recited “a single optical axis of the semiconductor light emitting device.” Indeed, a skilled artisan would also discern that the recited “optical axis of said device lens” does not necessarily correspond to “a single optical axis of the semiconductor light emitting device,” although it may correspond thereto.

In view of the above, Applicant respectfully submits that claim 16 clearly satisfies the requirements of 35 U.S.C. §112, second paragraph, and requests that the Examiner withdraw the objection to claim 16 for *at least* these reasons.

## **VII. Claim Rejections under 35 U.S.C. §102**

The Examiner has rejected claims 12-14 and 17 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,890,086 to Shiu (hereinafter “Shiu”). Since claims 12-14 and 17 have been canceled without prejudice or disclaimer, the Examiner’s rejections with respect to these claims are now moot.

**VIII. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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